WHAT IS CLAIMED IS:

1. A brightness adjusting apparatus for adjusting a brightness balance of a pair of images outputted from a stereoscopic camera having a first camera imaging a reference image and a second camera imaging a comparison image, comprising:

an adjusting means for adjusting said brightness balance by varying a gain;

a distance data calculating means for finding a pixel block having a brightness correlation with a pixel block of said reference image in said comparison image and for calculating a distance data based on a city block distance between both pixel blocks;

a distance data assigning means for assigning said distance data to said pixel block of said reference image;

a first evaluation window establishing means for establishing a first evaluation window composed of a plurality of pixel blocks in said reference image;

a parallax calculating means for calculating a parallax based on said distance data;

a second evaluation window establishing means for establishing a second evaluation window composed of a plurality of pixel blocks in said comparison image based on said parallax;

a first evaluation value calculating means for calculating a first evaluation value representing a magnitude of an entire brightness of said first evaluation window;

a second evaluation value calculating means for calculating a second evaluation value representing a magnitude of an entire brightness of said second evaluation window; and

a correcting means for correcting said gain so as to reduce the difference between said first evaluation value and said second evaluation value.

2. The apparatus according to claim 1, wherein said second evaluation window is established in a horizontally offset position from said first evaluation window.

3. The apparatus according to claim 1, wherein said parallax is calculated based on a histogram of said distance data.

4. The apparatus according to claim 1, wherein said parallax is calculated based on a mean value of said distance data.

5. The apparatus according to claim 1, wherein said second evaluation window is established in a horizontally offset position by an amount of said parallax from said first evaluation window.

6. The apparatus according to claim 1, further

comprising;

a correlation coefficient calculating means for calculating a correlation coefficient based on said first evaluation value and said second evaluation value.

7. The apparatus according to claim 6, wherein said first evaluation value and said second evaluation value are verified by said correlation coefficient.

8. The apparatus according to claim 1, wherein said second evaluation window is established by finding a pixel block having a largest brightness correlation with a pixel block of said first evaluation window in said comparison image within a specified range on the basis of a reference point established based on said parallax.

9. The apparatus according to claim 1, wherein said parallax is calculated only based on said distance data of a pixel block having a larger variation of brightness than a threshold value.

10. The apparatus according to claim 1, wherein said first evaluation value and said second evaluation value are calculated from at least one pair of first and second zones prepared in said reference image and said comparison image,

respectively and said pair of zones are established being horizontally offset by an amount of pixels according to the position of said zones.

11. The apparatus according to claim 10, wherein said amount of pixels are established in consideration of a tendency of a distance to an solid object projected in said first zones.